OCCUPATIONAL DISEASES - INTRODUCTION

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1. Topic topicality:

 In the last two centuries, technical-scientific development experienced a great rise and workers in various fields of activity are under the direct influence of the work environment modified by physical, chemical, biological, ergonomic factors, some of which are harmful and have serious repercussions on the health of the individual and the entire community.

2. History of occupational diseases:

 The harmful action of some environmental and work factors has been known since the prehistory of mankind. Lead toxicity was known in ancient Babylonia.

 In ancient Greece, Hippocrates (460-377 BC) mentions the hard conditions of miners, the harmful action of lead.

 Starting with the 15th century, the first systematic descriptions of some occupational ailments and diseases appear.

 The first description of chronic lead poisoning in Romania is attributed to Agricola (1494-1553).

 The first occupational medicine book belongs to Bernardino Romazzini (1633-1714), published in Padua in 1700, "De morbis artificum diatriba" (On the diseases of tradesmen).

 With the creation of the World Health Organization in 1946 and the definition of the concept of health, the concept of occupational medicine was formulated with its objectives.

3. Worldwide data:

 The International Labor Organization estimates that annually approximately 2.3 million workers die due to work accidents and occupational diseases, a figure comparable to the number of victims in a war.

 Annually more than 313 million workers are involved in work accidents followed by temporary work incapacity.

 160 million cases of occupational diseases occur annually

 6400 deaths occur daily as a result of work accidents and BP

 Every day 860,000 workers are injured at work.

4. THE SITUATION IN THE REPUBLIC OF MOLDOVA:

 Annually in the Republic of Moldova between 450-500 employees are traumatized as a result of work accidents, of which around 40 workers lose their lives and material losses amount to 3.5 million lei.

 However, occupational disease indices are insignificant and are decreasing from year to year. In the years 2013-2019, 16 cases of occupational disease were registered with an average occupational morbidity index of 0.43 per 100 thousand employees, which is much lower than the data from some European countries (for comparison: Russia – 15.0, Belarus – 29 ,0, Latvia – 139.3, Finland – 193.6, Sweden – 349.5, Denmark – 391.1).

 Indices of occupational diseases are low not because we have good working conditions, but because of deficiencies in assessing risk factors and monitoring workers' health.

5. OCCUPATIONAL MEDICINE:

 Occupational medicine - is the discipline that deals with the physical, mental and social well-being of man in his relationship with work and the work environment, with the adaptation of man to work and work to man (definition of the International Labor Organization and the World Organization of Health).

 The most important task of occupational medicine is to ensure human health, which (according to the WHO definition) is "a physical, mental and social well-being" and not only an absence of disease, to which we could add the possibility of adaptability of the body to environmental and work conditions.

6. Objectives of occupational medicine:
 Identification and assessment of health risk at work;
 Supervision of work environment factors that can affect health;
 Supervision of the state of health in relation to work;
 Medical expertise and professional rehabilitation;
 Compliance with the requirements of safety and work hygiene, ergonomics, collective and individual protection;
 Health education;
 Analysis of work accidents, occupational diseases and development of prevention measures.

7. Work process:
 It represents the sequence in time and space of the activities of the executor and the means of production in the labor system.

8. Work system:
 represents all the actions that the executor must carry out through the means of production, in order to achieve the purpose of the work system and the conditions imposed by their achievement.

9. The executor:
 is the worker directly involved in the performance of the work task.

10. The means of production:
 represents the totality of work objects (raw materials) that workers use in the production process.

11. Work environment:
 represents the totality of the physical, chemical, biological and psychological conditions in which the performer carries out his activity.

12. According to their nature, occupational risk factors are divided into:
 physical factors
 chemical factors
 biological factors
 psychosocial factors
 ergonomic factors.

13. Characteristics of professional risk factors:
 physical factors - mineral and organic dusts, radiation, variations in the temperature of the work environment, variations in air humidity, air currents, noise, tremors, abnormal atmospheric pressures, etc.;
 chemical factors – elements or harmful chemical substances that pollute the workplace atmosphere in dispersed, solid, liquid or gaseous form;
 biological factors - with a contaminating, infectious or parasitic effect on the body;
 psychosocial factors - with predominantly neuropsychic and stressful effect on the body, especially on the central nervous system;
 ergonomic factors – the insufficient adaptation of machines to the work process and of tools to human possibilities.

14. CLASSIFICATION OF OCCUPATIONAL RISK FACTORS ACCORDING TO A. A. КАСІІАРОВ, 1977:

I. Psycho-physiological factors
 Physical overexertions (static and dynamic) of the locomotor apparatus; lifting and carrying weights, uncomfortable position of the body, prolonged pressure on the skin, muscle joints, bones (can appear in non-mechanized work: loading, unloading, repair work, work of miners, seamstresses).
 Hypodynamia more frequent in intellectual work: scientists, pedagogues, accountants.
 Physiological overexertions of the organs of the circulatory and respiratory systems, the vocal cords (Hard work in various industrial branches, musicians playing wind instruments (brass band), singers, glassmakers, lecturers, information service operators).

 Psycho-emotional overwork: mental, emotional, analyzer overwork, monotony (work of operators, dispatchers, drivers, conveyor belt work).

II. Physical factors

 High or low values of air temperature, relative humidity, air movement in the work area (Metallurgical plants, machine builders, painting halls, refrigerators, outdoor construction works);
 Infrared radiation (Metallurgical plants, glass production);
 Ultraviolet radiation (Welding, electric melting of metal);
 Laser radiation (scientific investigations, device construction, medicine);
 Ionizing radiation (Atoelectric stations, gamma and roentgen detection);
 Electromagnetic radiation, electric and magnetic field (Atoelectric stations, gamma- and roentgen detection)
 Static electricity (Production of artificial leather, fabrics)
 Non-toxic fibrogenic powders (Mine, car manufacturing plants)
 Noise, vibration, ultrasound, infrasound Work with manual mechanized instrumentation at car manufacturing plants, in mines, the work of tractor drivers and combine harvesters.
 Insufficient lighting, increased lucidity, insufficient contrast (Mines, machine building halls, weaving machine manufacturers).

III. Chemical factors

 Gases, vapours, liquids, aerosols with general toxic action, exciting, sensitizing, carcinogenic, mutagenic on the reproductive function (Chemical factories, foundries, painting halls of car manufacturing plants, use of pesticides in agriculture).
 IV. Biological factors
 Macro- and microorganisms - the sources of infectious and mycotic diseases (Care of sick animals, processing of hides).

 Vitamins, hormones, antibiotics, protein substances. (Pharmaceutical factories, slaughterhouses, artificial feed industry and nutrient media).
 V. The danger of production trauma
 The presence of machines and mechanisms in motion, unprotected mobile production elements, high or low temperature of surfaces, alkaline and acid solutions, high voltage in electrical networks (car manufacturing plants, chemical factories, wood processing).

15. Occupational disease:

 It is important to emphasize that work is not a harmful factor, but on the contrary, it leads to the realization of goods to satisfy material and spiritual needs.
 Work, the professional activity, is carried out under certain conditions, called "working conditions" which can sometimes turn into either main or favoring etiological factors of occupational pathology.
 Occupational disease is a chronic condition that occurs as a result of exercising a job or a profession and is caused by physical, chemical or biological factors characteristic of the workplace, as well as by the overloading of different organs or systems of the body in the work process.

16. Classification of occupational diseases:

Depending on the nature of the risk factor that generated them, occupational diseases can be classified into the following groups:
 Intoxications, caused by inhalation, ingestion or contact of the epidermis with toxic substances;
 Pneumoconiosis, caused by inhalation of non-toxic powders;
 Diseases due to exposure to radiant energy;
 Diseases due to exposure to high or low temperatures;
 Diseases due to exposure to noise and vibrations;
 Diseases due to exposure to high or low atmospheric pressure;
 Professional allergies;

 Professional dermatoses;
 Occupational cancer;
 Infectious and parasitic diseases;
 Diseases due to overwork;
 Other diseases (not included in the previous categories).
 After the time of exposure to the action of the risk factor, there are:
 Acute intoxications (investigated both as an occupational disease and as a work accident), generated by a short-term exposure to the action of the risk factor, but at high doses. In turn, these are classified as intoxications with:
o Instant toxic effect: manifests itself after or during a very short exposure (from a few seconds to 1 or 2 minutes) through acute functional and/or damaging effects that can lead in particular to loss of consciousness, coma or cardiac arrest -breathing. Hydrocyanic acid, hydrogen sulphide, arsenic hydrogen and hydrogen phosphate exhibit these characteristics of flash poisoning.
Immediate toxic effect: manifests itself after a short-term exposure through an acute irritation of the respiratory mucous membranes or the skin, through a narcosis that imposes a functional incapacity, through an irreversible cellular damage.
 Chronic intoxications (researched as occupational diseases), usually caused by relatively small doses, but which act on the body for a long time. It is usually manifested by the appearance of cancer, toxic effects on the reproductive function, nervous system disorders, delayed hypersensitivity reactions.
 According to the mode of action of the risk factor on the body there are:
 Diseases with general action, which affect the whole body;
 Diseases with local action, which affect a part of the body, a device or an organ.
17. Classification of occupational diseases according to the WORLD LABOR ORGANIZATION, GENEVA 2010:
 Occupational diseases caused by exposure to agents resulting from work activity:
1.1 Diseases caused by chemical agents (lead, chloride poisoning)
1.2 Diseases caused by physical agents (high or low temperatures)
1.3 Biological agents and infectious or parasitic diseases (Brucellosis, Viral Hepatitis, HIV).
 Occupational diseases depending on the damage to the target system:
2.1 Respiratory diseases (silicosis, anthraco-silicosis, asbestosis)
2.2 Skin diseases (allergic dermatoses)
2.3 Musculoskeletal conditions
2.4 Mental and behavioral disorders (Post-traumatic stress disorder)
Occupational cancer
3.1 Cancer caused by the following agents
3.1.1 Asbestos
3.1.2 Benzidine and its salts
3.1.3 Bis-chloromethyl ether
3.1.4 Chromium compounds
3.1.5 Coal tar, coal tar pitch
3.1.6 Beta-naphthylamine
3.1.7 Vinyl chloride
3.1.8 Benzene
3.1.9 Nitro- and amino derivatives of benzene or their homologues
3.1.10 Ionizing radiation
 Other diseases
 4.1 Miners' nystagmus
 4.2 Other specific diseases caused by occupations or processes not mentioned in this list but with a scientifically established direct link.

18. ACCORDING TO THE DATA OF THEODORE H. TULCINSKY AND ELENA A. VARAVIKOVA (2003) THE MOST FREQUENT OCCUPATIONAL ILLNESSES AND INJURIES ARE:
 respiratory diseases;
 musculoskeletal disorders;
 cancer;
 severe traumas;
 reproductive function disorders;
 cardiovascular diseases;
 neurotic disorders;
 noise-related hypoacusis or anacusis;
 dermatological conditions;
 mental disorders.

19. Mechanisms of participation in the pathology of occupational diseases:
 Irritative reactions - some poisons exert mechanical irritations, others chemical ones that induce neurogenic reactions with spastic or hypersecretory effects. Strong irritations cause cell destruction by releasing "trigger" structural elements that initiate inflammation and at the same time reparative reactions.
 Specific inflammatory mechanisms - in infectious occupational diseases - Chronic granulomatous inflammation from silicosis and non-specific - in neurogenic inflammation following occupational irritants.
 Immunological mechanisms - allergic reactions type I - rhinitis, atopic asthma and occupational dermatitis, type II - Caplan syndrome, type III - some forms of occupational asthma, type IV - silicosis, asbestosis.
 Enzymatic mechanisms - involved in chemical poisoning.
 Interferences of the toxic with the respiratory cycle - with the establishment of respiratory insufficiency, affecting the capacity to transport oxygen through the toxic blocking of hemoglobin, etc.

20. Stages of diagnosing an occupational disease:
 Professional route;
 History of the disease;
 Objective examination;
 Laboratory investigations;
 Positive and differential diagnosis;

21. Investigation methods in occupational medicine:
 The hygienic approval method - for researching the hygienic condition of industrial enterprises, it consists in the description of technologies, halls, harmful factors, sources of environmental pollution, protective measures, establishing the places for collecting samples and their research in the laboratory, as well as for instrumental measures;
 Clinical, epidemiological and health statistical methods - for assessing the health and morbidity of workers;
 Electrophysiological, biochemical, morphological, hematological, toxicological methods - for the purpose of developing hygienic standards;
 The photochronometric method - for the assessment of work capacity;
 Ergonomic methods – can evaluate the position of the body in the work process.

22. Treatment of occupational diseases:
 Etiological
 Pathogenetic
 Symptomatic

23. Etiological treatment:
 Interruption of contact with the etiological factor is achieved in acute cases by removing from the harmful environment and removing the still unabsorbed toxic taking into account the portal of penetration into the body. In chronic cases through hospitalization/medical leave, temporary or permanent job change.
 Elimination of the toxic absorbed in the body.
24. Pathogenetic treatment:
 Acts at the level of some links of the physiopathological chain and provides specific medical actions to counteract the toxic effect and the evolution of the disease: vitamin therapy, enzyme reactivators, oxygen therapy, specific and non-specific desensitization.
25. Symptomatic treatment:
 It is less applied in the practice of occupational diseases, medical treatment that addresses the symptoms and dysfunctions of the body's devices and systems.
26. Declaration and record of occupational diseases, stages:
 Suspecting cases of occupational diseases and occupational poisoning;
 Reporting suspected cases of occupational diseases and occupational poisoning;
 Researching cases of occupational diseases and drawing up the research protocol;
 Confirmation of the diagnosis of occupational disease
 Declaration of occupational diseases.
27. Suspicion and reporting of occupational diseases:
 The report sheet for the case of suspected occupational disease (intoxication) is completed by the president of the medical commission in the public/private medical institution that established the suspicion of occupational disease (intoxication) or when referred by the family doctor.
 The report card is sent, on paper and in electronic form, to the responsible Public Health Center of the National Agency for Public Health and the employer (according to the last workplace of the affected person) within 24 hours from the moment of establishing the suspicion of occupational disease (intoxication).
28. Research:
 in the case of an acute illness or intoxication, it is carried out for 24 hours from the moment of intoxication;
 in the case of a chronic professional pathology for 15 days from the moment of suspicion, in the case of the need for additional information from the former workplace, the research period can be extended up to 30 days.
29. Research results (recorded in the minutes):
 For the employer
 The medical institution
30. Confirmation of occupational diseases:
 The president of the medical commission in the public/private medical institution, which established the suspicion of occupational disease (intoxication), is obliged within: 1) 14 calendar days in the case of acute occupational diseases (intoxication); 2) 45 calendar days in the case of chronic occupational diseases (poisoning), to send the affected person to the Republican Center for occupational diseases to establish the diagnosis of occupational disease (poisoning), who must present the following documents: a) the medical record of the outpatient patient (f.025/e) or the patient's medical record from the profile inpatient (f.003/e);
b) the medical file; c) the minutes/informative note regarding the existence/absence of the link between the working conditions and the occupational disease (intoxication); d) the document confirming the professional path of the employee; e) submission - extract (f.027/e).
31. Declaration of occupational diseases:
 After establishing the diagnosis of occupational disease (intoxication), the Republican Center for Occupational Diseases prepares the Occupational Disease (Intoxication) Case Declaration Sheet.

 The declaration form is sent, within 3 calendar days, to the Public Health Center and the employer

32. Legislation in occupational medicine:

 Declaration of human rights adopted by the UN on December 10, 1948 art.23 p.1, every person has the right to work, to freely choose his work, to fair and satisfactory working conditions.
 UN. Declaration on Fundamental Principles and Rights at Work.
 The European Convention for the Protection of Human Rights and Fundamental Freedoms, adopted in Rome in 1950.
 The European Social Charter - revised in 1996, art.3 The right to safety and occupational hygiene.
 There are 32 European directives (standards) in the field, most of which have not yet been implemented.
 ILO Conventions in number adopted -187, ratified by the Republic of Moldova -39, the basic ones:
 1. ILO Convention (no. 81) regarding labor inspection
 2. ILO Convention (No. 100) on equal pay,
 3. ILO Convention (no. 111) on discrimination (employment and profession),
 4. ILO Convention (No. 122) on employment policy
 5. ILO Convention (no. 155) regarding occupational safety and hygiene.

33. THE LABOR PROTECTION LEGISLATIVE FRAMEWORK IN THE REPUBLIC OF MOLDOVA IS REPRESENTED BY:

 Health Protection Law, no. 411-XIII of 28.03.1995;
 Law on safety and health at work, no. 186-XVI of 10.07.2008;
 Insurance Law for work accidents and occupational diseases, no. 756 of 24.12.1999
 GD no. 1025 of 07.09.2016 for the approval of the sanitary regulation regarding the health supervision of persons exposed to occupational risk factors;
 GD no. 1282 of 29.11.2016 for the approval of the Health Regulation on the method of research and establishing the diagnosis of occupational disease.

34. National Acts:

 1. HG no. 624 of 06.10.1993 regarding the approval of the Nomenclature of industries, professions and works with heavy and harmful working conditions, forbidden to women and the Norms of maximum demand, allowed for women to lift and carry manual weights.
 2. GD no. 1101 of 17.10.2001 for the approval of the Regulation regarding the establishment of the disability allowance for work accidents and occupational diseases.
 3. HG no. 1335 of 10.10.2002 on the approval of the Regulation on the evaluation of working conditions at workplaces.
 4. HG no. 152 of 19.02.2004 regarding the amount of the compensation increase for work performed in unfavorable conditions.
 5. HG no. 1223 of 09.11.2004 regarding the approval of the Nomenclature of professions and positions with harmful working conditions.
 6. GD no. 1487 of 31.12.2004 regarding the approval of the standard List of works and workplaces with difficult and particularly difficult conditions.
 7. HG no. 1361 of 22.12.2005 on the approval of the Regulation on the manner of investigation of work accidents.
 8. HG no. 95 of 05.02.2009 for the approval of some normative acts regarding the implementation of the Occupational Health and Safety Law no. 18
 9. HG no. 353 of 05.05.2010 regarding the approval of the minimum safety and health requirements at the workplace.
 10. HG no. 603 of 11.08.2011 regarding the minimum security and health requirements for the use of protective equipment by workers.

 11. HG no. 80 of 09.02.2012 regarding the minimum safety and health requirements for temporary or mobile construction sites.
 12. GD no. 244 of 08.04.2013 regarding the approval of the Minimum Requirements for the protection of workers against risks related to exposure to asbestos at work.
 13. GD no. 324 of 30.05.2013 regarding the approval of the Sanitary Regulation regarding health and safety requirements for ensuring the protection of workers against the risks related to the presence of chemical agents at the workplace.
 14. HG no. 918 of 18.11.2013 regarding the minimum requirements for safety and health signage at the workplace.
 15. GD no. 362 of 27.05.2014 regarding the approval of the Minimum Requirements regarding the protection of workers against health risks.
 16. HG no. 541 of 07.07.2014 regarding the approval of the Nomenclature of works with heavy, harmful and/or dangerous conditions.
 17. HG no. 584 of 12.05.2016 regarding the minimum safety and health requirements at work for the manual handling of loads.
 18. GD no. 589 of 12.05.2016 regarding the minimum safety and health requirements at work regarding the exposure of workers to vibration risks.
 19. HG no. 819 of 01.07.2016 regarding the minimum occupational health and safety requirements for monitor work.
 20. HG no. 1324 of 08.12.2016 for the approval of the Technical Regulation regarding
 the essential security requirements of explosives for use
 civil, making available on the market and control of explosives for civil use.
 21. HG no. 1408 of 27.12.2016 regarding the minimum safety and health requirements at work for the protection of pregnant employees.
 22. HG no. 506 of 06.07.2017 for the approval of the minimum security requirements regarding the operation of elevators.
 23. HG no. 608 of 03.07.2018 for the approval of the Regulation on ensuring radiological safety in activities with radioactive sources.
 24. HG no. 151 of March 7, 2019 regarding the approval of the minimum requirements for safety and health at work in the extractive industry.
 25. Norms for the development of labor protection measures, MMPS Order no. 40 of 16.08.2001

35. The occupational safety and health law includes:
 Article 1. Main notions
 Safety and health at work - set of activities aimed at ensuring the best working conditions, protecting the life, health, physical and mental integrity of workers;
 Article 19. Obligations and rights of workers
 Each worker will carry out his activity in accordance with his professional training and training, as well as with the occupational safety and health instructions received from the employer, so as not to expose himself or others to the risk of occupational injury or illness persons who could be affected by his actions or omissions during work.
36. GOVERNMENT DECISION NO. 1025 OF 07.09.2016:
 The sanitary regulation regarding the supervision of the health of persons exposed to the action of occupational risk factors (hereinafter - Regulation) establishes the requirements for the supervision of the health of persons in relation to the risk factors (chemical, physical-chemical, biological and other factors caused by the work process) from work.
 The supervision of the health of people exposed to the action of occupational risk factors in the administrative territory is the responsibility of the public health centers represented by occupational health physicians.
 Mandatory prophylactic medical examinations of persons exposed to the action of occupational

risk factors are carried out by the medical commissions within the public/private medical-sanitary institutions, with the coordination of the Ministry of Health, Labor and Social Protection.

37. GOVERNMENT DECISION NO. 1282 OF 29.11.2016:

 The sanitary regulation regarding the method of research and establishing the diagnosis of occupational disease (intoxication) (hereinafter - Regulation) establishes requirements for reporting, investigating suspected cases of occupational disease (intoxication), declaring, recording and reporting occupational morbidity, for the purpose of applying treatment measures, as well as prevention of the action of professional risk factors (chemical, physical, physico-chemical, biological and other factors caused by the work process) on people's health.

 Establishing the suspicion of occupational disease (intoxication) is the task of the president of the medical commission (doctor in occupational pathologies), responsible for conducting prophylactic medical examinations for people exposed to the action of occupational risk factors.

 All documents related to the research and establishment of the diagnosis of occupational disease (intoxication) are confidential and are to be processed under the conditions established by the legislation on the protection of personal data.

38. Measures to prevent the negative impact of working conditions on the body:

 Legislative measures;
 Organizational and planning measures,
 Technological measures;
 Technical-sanitary measures;
 Administrative measures;
 Medical measures.

39. Technical-organizational measures:

 Eliminating the professional nox from the technological process by replacing harmful substances or harmful technologies with less harmful or harmless ones;
 Isolation of the equipment generating noxes (automation, special cabins, thermal insulation);
 Preventing the penetration of noxia into the air of workplaces (sealing, wet processes for powders, local ventilation);
 Decreasing the concentrations of existing noxes at the workplace;
 Preventing the action of noxia on workers or reducing this action by reducing physical effort, physical and neuropsychic overloads, reducing the duration of the working day, using individual protective equipment, etc.;
 Ensuring protective nutrition and consuming it in the unit;
 The correct execution of training for safety and health at work.

40. Medical measures:

 Recognition of occupational risk at workplaces through the careful study of the technological process and working conditions, carrying out noxious determinations, epidemiological studies;
 The appropriate performance of the medical examination upon employment and the periodic one (clinical and laboratory examinations depending on the type of professional noxes and their intensity, which also guides the periodicity of the examinations);
 Health education, which is addressed to the technical and administrative management staff, in order for them to carry out the mentioned technical-organizational measures in conditions of maximum efficiency, to the working staff in order to comply with the rules of individual hygiene, the correct wearing of individual protective equipment, providing first aid, knowing and recognizing the first symptoms of acute and chronic occupational intoxication, presenting to medical examinations.

41. IMPROVEMENT OF INDIVIDUAL PROTECTIVE EQUIPMENT:

 Standardization of respiratory protection equipment in production areas.
 Removal of respiratory protection equipment from areas where monitoring results show that the exposure is lower than the Occupational Exposure Limit

 A new parameter was included for the selection process of suppliers of protective gloves, namely the permeability of the gloves to chemical substances
 Changing the model of work equipment to reduce the integumentary areas exposed to chemicals.
42. Development of a coherent, effective prevention policy:
 Eliminating risks
 Adapting the work of each individual person
 Adaptation to technical progress
 Automating the work process and eliminating manual manipulations as much as possible.
 Training, Informing and Consulting employees regarding OSH (Work Safety and Security).
 Medical supervision.

QUESTIONS TO VERIFY KNOWLEDGE:

43. What is the topicality of the theme?
 In the last two centuries, technical-scientific development experienced a great rise and workers in various fields of activity are under the direct influence of the work environment modified by physical, chemical, biological, ergonomic factors, some of which are harmful and have serious repercussions on the health of the individual and the entire community.
44. Describe the history of occupational diseases:
 The harmful action of some environmental and work factors has been known since the prehistory of mankind. Lead toxicity was known in ancient Babylonia.
 In ancient Greece, Hippocrates (460-377 BC) mentions the hard conditions of miners, the harmful action of lead.
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 It represents the sequence in time and space of the activities of the executor and the means of production in the labor system.

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 represents all the actions that the executor must carry out through the means of production, in order to achieve the purpose of the work system and the conditions imposed by their achievement.

51. What does the executor represent?
 is the worker directly involved in the performance of the work task.

52. What are the means of production?
 represents the totality of work objects (raw materials) that workers use in the production process.

53. What is the work environment?
 represents the totality of the physical, chemical, biological and psychological conditions in which the performer carries out his activity.

54. According to their nature, occupational risk factors are divided into:
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55. What is the characteristic of occupational risk factors?
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 Psycho-emotional overwork: mental, emotional, analyzer overwork, monotony (work of operators, dispatchers, drivers, conveyor belt work).

II. Physical factors
 High or low values of air temperature, relative humidity, air movement in the work area (Metallurgical plants, machine builders, painting halls, refrigerators, outdoor construction works);
 Infrared radiation (Metallurgical plants, glass production);
 Ultraviolet radiation (Welding, electric melting of metal);
 Laser radiation (scientific investigations, device construction, medicine);
 Ionizing radiation (Atoelectric stations, gamma and roentgen detection);
 Electromagnetic radiation, electric and magnetic field (Atoelectric stations, gamma- and roentgen detection)
 Static electricity (Production of artificial leather, fabrics)
 Non-toxic fibrogenic powders (Mine, car manufacturing plants)
 Noise, vibration, ultrasound, infrasound Work with manual mechanized instrumentation at car manufacturing plants, in mines, the work of tractor drivers and combine harvesters.
 Insufficient lighting, increased lucidity, insufficient contrast (Mines, machine building halls, weaving machine manufacturers).
 High or low atmospheric pressure. (Construction of bridges, tunnels, air transport).
III. Chemical factors
 Gases, vapours, liquids, aerosols with general toxic action, exciting, sensitizing, carcinogenic, mutagenic on the reproductive function (Chemical factories, foundries, painting halls of car manufacturing plants, use of pesticides in agriculture).
 IV. Biological factors
 Macro- and microorganisms - the sources of infectious and mycotic diseases (Care of sick animals, processing of hides).
 Vitamins, hormones, antibiotics, protein substances. (Pharmaceutical factories, slaughterhouses, artificial feed industry and nutrient media).
 V. The danger of production trauma
 The presence of machines and mechanisms in motion, unprotected mobile production elements, high or low temperature of surfaces, alkaline and acid solutions, high voltage in electrical networks (car manufacturing plants, chemical factories, wood processing).

57. What is occupational disease?

 It is important to emphasize that work is not a harmful factor, but on the contrary, it leads to the realization of goods to satisfy material and spiritual needs.
 Work, the professional activity, is carried out under certain conditions, called "working conditions" which can sometimes turn into either main or favoring etiological factors of occupational pathology.
 Occupational disease is a chronic condition that occurs as a result of exercising a job or a profession and is caused by physical, chemical or biological factors characteristic of the workplace, as well as by the overloading of different organs or systems of the body in the work process.

58. Classification of occupational diseases?

Depending on the nature of the risk factor that generated them, occupational diseases can be classified into the following groups:
 Intoxications, caused by inhalation, ingestion or contact of the epidermis with toxic substances;
 Pneumoconiosis, caused by inhalation of non-toxic powders;
 Diseases due to exposure to radiant energy;
 Diseases due to exposure to high or low temperatures;
 Diseases due to exposure to noise and vibrations;
 Diseases due to exposure to high or low atmospheric pressure;
 Professional allergies;
 Professional dermatoses;
 Occupational cancer;

 Infectious and parasitic diseases;
 Diseases due to overwork;
 Other diseases (not included in the previous categories).
 After the time of exposure to the action of the risk factor, there are:
 Acute intoxications (investigated both as an occupational disease and as a work accident), generated by a short-term exposure to the action of the risk factor, but at high doses. In turn, these are classified as intoxications with:
o Instant toxic effect: manifests itself after or during a very short exposure (from a few seconds to 1 or 2 minutes) through acute functional and/or damaging effects that can lead in particular to loss of consciousness, coma or cardiac arrest -breathing. Hydrocyanic acid, hydrogen sulphide, arsenic hydrogen and hydrogen phosphate exhibit these characteristics of flash poisoning.
o Immediate toxic effect: manifests itself after a short-term exposure through an acute irritation of the respiratory mucous membranes or the skin, through a narcosis that imposes a functional incapacity, through an irreversible cellular damage.
 Chronic intoxications (researched as occupational diseases), usually caused by relatively small doses, but which act on the body for a long time. It manifests usually through the appearance of cancer, toxic effects on the reproductive function, nervous system disorders, delayed hypersensitivity reactions.
 According to the mode of action of the risk factor on the body there are:
 Diseases with general action, which affect the whole body;
 Diseases with local action, which affect a part of the body, a device or an organ.

59. Classification of occupational diseases according to the WORLD LABOR ORGANIZATION, GENEVA 2010?
 Occupational diseases caused by exposure to agents resulting from work activity:
1.1 Diseases caused by chemical agents (lead, chloride poisoning)
1.2 Diseases caused by physical agents (high or low temperatures)
1.3 Biological agents and infectious or parasitic diseases (Brucellosis, Viral Hepatitis, HIV).
 Occupational diseases depending on the damage to the target system:
2.1 Respiratory diseases (silicosis, anthraco-silicosis, asbestosis)
2.2 Skin diseases (allergic dermatoses)
2.3 Musculoskeletal conditions
2.4 Mental and behavioral disorders (Post-traumatic stress disorder)
 Occupational cancer
3.1 Cancer caused by the following agents
3.1.1 Asbestos
3.1.2 Benzidine and its salts
3.1.3 Bis-chloromethyl ether
3.1.4 Chromium compounds
3.1.5 Coal tar, coal tar pitch
3.1.6 Beta-naphthylamine
3.1.7 Vinyl chloride
3.1.8 Benzene
3.1.9 Nitro- and amino derivatives of benzene or their homologues
3.1.10 Ionizing radiation
 Other diseases
 4.1 Miners' nystagmus
 4.2 Other specific diseases caused by occupations or processes not mentioned in this list but with a scientifically established direct link.
60. ACCORDING TO THE DATA OF THEODORE H. TULCINSKY AND ELENA A.

VARAVIKOVA (2003) THE MOST FREQUENT OCCUPATIONAL ILLNESSES AND INJURIES ARE:
 respiratory diseases;
 musculoskeletal disorders;
 cancer;
 severe traumas;
 reproductive function disorders;
 cardiovascular diseases;
 neurotic disorders;
 noise-related hypoacusis or anacusis;
 dermatological conditions;
 mental disorders.

61. What are the mechanisms of participation in the pathology of occupational diseases?
 Irritative reactions - some poisons exert mechanical irritations, others chemical ones that induce neurogenic reactions with spastic or hypersecretory effects. Strong irritations cause cell destruction by releasing "trigger" structural elements that initiate inflammation and at the same time reparative reactions.
 Specific inflammatory mechanisms - in infectious occupational diseases - Chronic granulomatous inflammation from silicosis and non-specific - in neurogenic inflammation following occupational irritants.
 Immunological mechanisms - allergic reactions type I - rhinitis, atopic asthma and occupational dermatitis, type II - Caplan syndrome, type III - some forms of occupational asthma, type IV - silicosis, asbestosis.
 Enzymatic mechanisms - involved in chemical poisoning.
 Interferences of the toxic with the respiratory cycle - with the establishment of respiratory insufficiency, affecting the capacity to transport oxygen through the toxic blocking of hemoglobin, etc.
62. What are the stages of diagnosing an occupational disease?
 Professional route;
 History of the disease;
 Objective examination;
 Laboratory investigations;
 Positive and differential diagnosis;
63. What are the investigative methods in occupational medicine?
 The hygienic approval method - for researching the hygienic condition of industrial enterprises, it consists in the description of technologies, halls, harmful factors, sources of environmental pollution, protective measures, establishing the places for collecting samples and their research in the laboratory, as well as for instrumental measures;
 Clinical, epidemiological and health statistical methods - for assessing the health and morbidity of workers;
 Electrophysiological, biochemical, morphological, hematological, toxicological methods - for the purpose of developing hygienic standards;
 The photochronometric method - for the assessment of work capacity;
 Ergonomic methods – can evaluate the position of the body in the work process.
64. What is the treatment of occupational diseases?
 Etiological
 Pathogenetic
 Symptomatic
65. What does the etiological treatment consist of?

 Interruption of contact with the etiological factor is achieved in acute cases by removing it from the harmful environment and removing the still unabsorbed toxic taking into account the entry point into the body. In chronic cases through hospitalization/medical leave, temporary or permanent job change.
 Elimination of the toxic absorbed in the body.

66. What does pathogenetic treatment consist of?

 Acts at the level of some links of the physiopathological chain and provides specific medical actions to counteract the toxic effect and the evolution of the disease: vitamin therapy, enzyme reactivators, oxygen therapy, specific and non-specific desensitization.

67. Symptomatic treatment?

 It is less applied in the practice of occupational diseases, medical treatment that addresses the symptoms and dysfunctions of the body's devices and systems.

68. Declaration and record of occupational diseases, what are the stages?

 Suspecting cases of occupational diseases and occupational poisoning;
 Reporting suspected cases of occupational diseases and occupational poisoning;
 Researching cases of occupational diseases and drawing up the research protocol;
 Confirmation of the diagnosis of occupational disease
 Declaration of occupational diseases.

69. How do you suspect and report occupational diseases?

 The report sheet for the case of suspected occupational disease (intoxication) is completed by the president of the medical commission in the public/private medical institution that established the suspicion of occupational disease (intoxication) or when referred by the family doctor.
 The report card is sent, on paper and in electronic form, to the responsible Public Health Center of the National Agency for Public Health and the employer (according to the last workplace of the affected person) within 24 hours from the moment of establishing the suspicion of occupational disease (intoxication).

70. How does the research take place?

 in the case of an acute illness or intoxication, it is carried out for 24 hours from the moment of intoxication;
 in the case of a chronic professional pathology for 15 days from the moment of suspicion, in the case of the need for additional information from the former workplace, the research period can be extended up to 30 days.

71. How is occupational diseases confirmed?

 The president of the medical commission in the public/private medical institution, which established the suspicion of occupational disease (intoxication), is obliged within: 1) 14 calendar days in the case of acute occupational diseases (intoxication); 2) 45 calendar days in the case of chronic occupational diseases (poisoning), to send the affected person to the Republican Center for occupational diseases to establish the diagnosis of occupational disease (poisoning), who must present the following documents: a) the medical record of the outpatient patient (f.025/e) or the patient's medical record from the profile inpatient (f.003/e); b) the medical file; c) the minutes/informative note regarding the existence/absence of the link between the working conditions and the occupational disease (intoxication); d) the document confirming the professional path of the employee; e) submission - extract (f.027/e).

72. How does the Declaration of Occupational Diseases proceed?

 After establishing the diagnosis of occupational disease (intoxication), the Republican Center for Occupational Diseases prepares the Occupational Disease (Intoxication) Case Declaration Sheet.
 The declaration form is sent, within 3 calendar days, to the Public Health Center and the employer

73. What is the legislation in occupational medicine?

 Declaration of human rights adopted by the UN on December 10, 1948 art.23 p.1, every person

has the right to work, to freely choose his work, to fair and satisfactory working conditions.
 UN. Declaration on Fundamental Principles and Rights at Work.
 The European Convention for the Protection of Human Rights and Fundamental Freedoms, adopted in Rome in 1950.
 The European Social Charter - revised in 1996, art.3 The right to safety and occupational hygiene.
 There are 32 European directives (standards) in the field, most of which have not yet been implemented.
 ILO Conventions in number adopted -187, ratified by the Republic of Moldova -39, the basic ones:
 1. ILO Convention (no. 81) regarding labor inspection
 2. ILO Convention (No. 100) on equal pay,
 3. ILO Convention (no. 111) on discrimination (employment and profession),
 4. ILO Convention (No. 122) on employment policy
 5. ILO Convention (no. 155) regarding occupational safety and hygiene.

74. THE LABOR PROTECTION LEGISLATIVE FRAMEWORK IN THE REPUBLIC OF MOLDOVA IS REPRESENTED BY:
 Health Protection Law, no. 411-XIII of 28.03.1995;
 Law on safety and health at work, no. 186-XVI of 10.07.2008;
 Insurance Law for work accidents and occupational diseases, no. 756 of 24.12.1999
 GD no. 1025 of 07.09.2016 for the approval of the sanitary regulation regarding the health supervision of persons exposed to occupational risk factors;
 GD no. 1282 of 29.11.2016 for the approval of the Health Regulation on the method of research and establishing the diagnosis of occupational disease.

75. What are the national acts:
 GD no. 624 of 06.10.1993 regarding the approval of the Nomenclature of industries, professions and works with heavy and harmful working conditions, forbidden to women and the Norms of maximum demand, allowed for women to lift and carry manual weights.
 2. GD no. 1101 of 17.10.2001 for the approval of the Regulation regarding the establishment of the disability allowance for work accidents and occupational diseases.
 3. HG no. 1335 of 10.10.2002 on the approval of the Regulation on the evaluation of working conditions at workplaces.
 4. HG no. 152 of 19.02.2004 regarding the amount of the compensation increase for work performed in unfavorable conditions.
 5. HG no. 1223 of 09.11.2004 regarding the approval of the Nomenclature of professions and positions with harmful working conditions.
 6. GD no. 1487 of 31.12.2004 regarding the approval of the standard List of works and workplaces with difficult and particularly difficult conditions.

20
 7. HG no. 1361 of 22.12.2005 on the approval of the Regulation on the manner of investigation of work accidents.
 8. HG no. 95 of 05.02.2009 for the approval of some normative acts regarding the implementation of the Occupational Health and Safety Law no. 18
 9. HG no. 353 of 05.05.2010 regarding the approval of the minimum safety and health requirements at the workplace.
 10. HG no. 603 of 11.08.2011 regarding the minimum security and health requirements for the use of protective equipment by workers.
 11. HG no. 80 of 09.02.2012 regarding the minimum safety and health requirements for temporary or mobile construction sites.
 12. GD no. 244 of 08.04.2013 regarding the approval of the Minimum Requirements for the

protection of workers against risks related to exposure to asbestos at work.
 13. GD no. 324 of 30.05.2013 regarding the approval of the Sanitary Regulation regarding health and safety requirements for ensuring the protection of workers against the risks related to the presence of chemical agents at the workplace.
 14. HG no. 918 of 18.11.2013 regarding the minimum requirements for safety and health signage at the workplace.
 15. GD no. 362 of 27.05.2014 regarding the approval of the Minimum Requirements regarding the protection of workers against health risks.
 16. HG no. 541 of 07.07.2014 regarding the approval of the Nomenclature of works with heavy, harmful and/or dangerous conditions.
 17. HG no. 584 of 12.05.2016 regarding the minimum safety and health requirements at work for the manual handling of loads.
 18. GD no. 589 of 12.05.2016 regarding the minimum safety and health requirements at work regarding the exposure of workers to vibration risks.
 19. HG no. 819 of 01.07.2016 regarding the minimum occupational health and safety requirements for monitor work.
 20. HG no. 1324 of 08.12.2016 for the approval of the Technical Regulation regarding
 the essential security requirements of explosives for use
 civil, making available on the market and control of explosives for civil use.
 21. HG no. 1408 of 27.12.2016 regarding the minimum safety and health requirements at work for the protection of pregnant employees.
 22. HG no. 506 of 06.07.2017 for the approval of the minimum security requirements regarding the operation of elevators.
 23. HG no. 608 of 03.07.2018 for the approval of the Regulation on ensuring radiological safety in activities with radioactive sources.
 24. HG no. 151 of March 7, 2019 regarding the approval of the minimum requirements for safety and health at work in the extractive industry.
 25. Norms for the development of labor protection measures, MMPS Order no. 40 of 16.08.2001
76. The occupational safety and health law includes:
 Article 1. Main notions
21
 Safety and health at work - set of activities aimed at ensuring the best working conditions, protecting the life, health, physical and mental integrity of workers;
 Article 19. Obligations and rights of workers
 Each worker will carry out his activity in accordance with his professional training and training, as well as with the occupational safety and health instructions received from the employer, so as not to expose himself or others to the risk of occupational injury or illness persons who could be affected by his actions or omissions during work.
77. GOVERNMENT DECISION NO. 1025 FROM 07.09.2016 what does it determine?
 The sanitary regulation regarding the supervision of the health of persons exposed to the action of occupational risk factors (hereinafter - Regulation) establishes the requirements for the supervision of the health of persons in relation to the risk factors (chemical, physical-chemical, biological and other factors caused by the work process) from work.
 The supervision of the health of people exposed to the action of occupational risk factors in the administrative territory is the responsibility of the public health centers represented by occupational health physicians.
 Mandatory prophylactic medical examinations of persons exposed to the action of occupational risk factors are carried out by the medical commissions within the public/private medical-sanitary institutions, with the coordination of the Ministry of Health, Labor and Social Protection.
78. GOVERNMENT DECISION NO. 1282 OF 29.11.2016?

 The sanitary regulation regarding the method of research and establishing the diagnosis of occupational disease (intoxication) (hereinafter - Regulation) establishes requirements for reporting, investigating suspected cases of occupational disease (intoxication), declaring, recording and reporting occupational morbidity, for the purpose of applying treatment measures, as well as prevention of the action of professional risk factors (chemical, physical, physico-chemical, biological and other factors caused by the work process) on people's health.
 Establishing the suspicion of occupational disease (intoxication) is the task of the president of the medical commission (doctor in occupational pathologies), responsible for conducting prophylactic medical examinations for people exposed to the action of occupational risk factors.
 All documents related to the research and establishment of the diagnosis of occupational disease (intoxication) are confidential and are to be processed under the conditions established by the legislation on the protection of personal data.

79. What are the measures to prevent the negative impact of working conditions on the body?
 Legislative measures;
 Organizational and planning measures,
 Technological measures;
 Technical-sanitary measures;
 Administrative measures;
 Medical measures.

80. What are the technical-organizational measures?
 Eliminating the professional nox from the technological process by replacing harmful substances or harmful technologies with less harmful or harmless ones;
 Isolation of the equipment generating noxes (automation, special cabins, thermal insulation);
 Preventing the penetration of noxia into the air of workplaces (sealing, wet processes for powders, local ventilation);
 Decreasing the concentrations of existing noxes at the workplace;
 Preventing the action of noxia on workers or reducing this action by reducing physical effort, physical and neuropsychic overloads, reducing the duration of the working day, using individual protective equipment, etc.;
 Ensuring protective nutrition and consuming it in the unit;
 The correct execution of training for safety and health at work.

81. What are the medical measures?
 Recognition of occupational risk at workplaces through the careful study of the technological process and working conditions, carrying out noxious determinations, epidemiological studies;
 The appropriate performance of the medical examination upon employment and the periodic one (clinical and laboratory examinations depending on the type of professional noxes and their intensity, which also guides the periodicity of the examinations);
 Health education, which is addressed to the technical and administrative management staff, in order for them to carry out the mentioned technical-organizational measures in conditions of maximum efficiency, to the working staff in order to comply with the rules of individual hygiene, the correct wearing of individual protective equipment, providing first aid, knowing and recognizing the first symptoms of acute and chronic occupational intoxication, presenting to medical examinations.

82. IMPROVEMENT OF INDIVIDUAL PROTECTIVE EQUIPMENT:
 Standardization of respiratory protection equipment in production areas.
 Removal of respiratory protection equipment from areas where monitoring results show that the exposure is lower than the Occupational Exposure Limit
 A new parameter was included for the selection process of suppliers of protective gloves, namely the permeability of the gloves to chemical substances
 Changing the model of work equipment to reduce the integumentary areas exposed to chemicals.

83. What would the development of a coherent, effective prevention policy entail?
 Eliminating risks
 Adapting each person's work
 Adaptation to technical progress
 Automating the work process and eliminating manual manipulations as much as possible.
 Training, Informing and Consulting employees regarding OSH (Work Safety and Security).
 Medical supervision.
 Risk monitoring.
 Health education.

TESTS TO VERIFY KNOWLEDGE:

1. C.M What is the current state of occupational diseases?
[*] In the last two centuries, technical-scientific development experienced a great rise
[*] workers are under the direct influence of the work environment modified by physical, chemical, biological, ergonomic factors
[*] have serious repercussions on the health of the individual and the entire community.
[ ] have no negative effect on workers' health
[ ] occupational diseases are not recognized
2. C.M What is the history of occupational diseases?
[*] The harmful action of some environmental and work factors has been known since the prehistory of mankind
[*] The first occupational medicine book belongs to Bernardino Romazzini
[*] in 1946, the concept of occupational medicine was formulated with its objectives.
[*] In ancient Greece, Hippocrates (460-377 BC) mentions the harsh conditions of miners, the harmful action of lead
[ ] are not recognized and declared as such pathologies
3. C.M World data on occupational disease:
[*] The International Labor Organization estimates that annually approximately 2.3 million workers die due to work accidents and occupational diseases
[*] Every year more than 313 million workers are involved in work accidents
[*] 6400 deaths occur daily as a result of work accidents and BP
[ ] practically no such pathologies are declared
[ ] a small number of occupational diseases are reported every day
4. C.M SITUATION IN THE REPUBLIC OF MOLDOVA regarding occupational diseases?
[*] Annually in the Republic of Moldova between 450-500 employees are traumatized as a result of work accidents
[ ] Annually in the Republic of Moldova between 1000-1200 employees are traumatized as a result of work accidents
[*] In the years 2013-2019, 16 cases of occupational disease were registered
[ ] In the years 2013-2019, 147 cases of occupational disease were registered
[*] occupational morbidity index on average 0.43 per 100 thousand employees

5. C.S. THE SITUATION IN THE REPUBLIC OF MOLDOVA regarding occupational diseases?
[*] In the years 2013-2019, 16 cases of occupational disease were registered
[ ] In the years 2013-2019, 166 cases of occupational disease were registered
[ ] In the years 2013-2019, 286 cases of occupational disease were registered
[ ] In the years 2013-2019, 0 cases of occupational disease were registered
[ ] In the years 2013-2019, 1 case of occupational disease was registered
6. C.S. THE SITUATION IN THE REPUBLIC OF MOLDOVA regarding occupational diseases?
[*] Occupational disease rates are low due to deficiencies in risk factor assessment and worker health monitoring.
[ ] The rates of occupational diseases are low not because we have good working conditions.
[ ] Occupational disease rates are high.
[ ] Occupational disease indices are relatively high because we have good working conditions
[ ] high-level risk factor assessment.
7. C.S. OCCUPATIONAL MEDICINE what does it deal with?

22

24
[*] Occupational medicine - is the discipline that deals with the physical, mental and social well-being of man in his relationship with work and the work environment, with the adaptation of man to work and work to man (definition of the International Labor Organization and the Organization of Health).
[ ] It has no well-defined purpose
[ ] Failure to ensure working conditions
[ ] Unadaptability of the body to environmental and work conditions.
[ ] The task of occupational medicine is to ensure human health
8. C.M What are the objectives of occupational medicine?
[*] Identification and assessment of health risk at work;
[*] Supervision of work environment factors that can affect health;
[*] Work-related health surveillance;
[*] Medical expertise and professional rehabilitation;
[ ] Failure to assess health risk at work
9. C.M What are the objectives of occupational medicine?
[*] Compliance with safety and work hygiene requirements, ergonomics, collective and individual protection;
[*] Health education;
[*] Analysis of work accidents, occupational diseases and development of prevention measures.
[ ] Failure to comply with safety and occupational hygiene requirements
[ ] Failure to supervise work environment factors
10. C.S. What is the work process?
[*] It represents the sequence in time and space of the activities of the performer and the means of production in the labor system.
[ ] Represents the non-succession in time and space of the activities of the executor.
[ ] Failure to supervise work environment factors
[ ] Represents the non-succession in time of the means of production in the labor system.
[ ] Failure to achieve any goal.
11. C.S. What does the work system represent?
[*] represents the totality of actions through the means of production, to achieve the goal of the work system.
[ ] Failure to supervise work environment factors
[ ] Represents the non-succession in time of the means of production in the labor system
[ ] Represents the sequence in time and space of the activities of the performer and the means of production in the labor system.
[ ] Represents the non-succession in time and space of the activities of the executor
12. C.S. What does the executor represent?
[*] is the worker directly involved in the performance of the work task.
[ ] is the worker that has no result. [ ] Person who leads to failure of a plan. [ ] is the worker who performs nothing [ ] the non-succession in time and space of the activities of the performer
13. C.S What are the means of production?
[*] represents the totality of labor objects (raw materials) that workers use in the production process
[ ] represents the totality of labor objects (raw materials) that workers do not use in the production process
[ ] represents the totality of labor objects that workers use not in the production process.
[ ] the set of material means with which people do not act on the objects of work.
[ ] the set of intangible assets.
14. C.S. What is the work environment?
[*] represents the totality of the physical, chemical, biological and psychological conditions in

which the performer carries out his activity.
[ ] represents all the physical, chemical, biological and psychological conditions in which the performer does not carry out his activity. [ ] refers to all conditions and factors that do not influence work.
[ ] all answers are correct
[ ] no answer is correct.
15. C.M According to their nature, occupational risk factors are divided into:
[*] physical factors
[*] chemical factors
[*] biological factors
[*] psychosocial factors
[ ] the behavior
16. C.M According to their nature, occupational risk factors are divided into:
[*] biological factors
[*] psychosocial factors
[*] ergonomic factors.
[ ] the behavior
[ ] the financial factor
17. C.M What is the characteristic of professional risk factors?
[*] physical factors – mineral and organic dust, radiation, variations in the temperature of the work environment, variations in air humidity, etc.
[*] chemical factors – elements or harmful chemical substances that pollute the workplace atmosphere in dispersed, solid, liquid or gaseous form;
[*] biological factors – with a contaminating, infectious or parasitic effect on the body;
[] social factors – with predominantly psychological effect,
[*] ergonomic factors – insufficient adaptation of machines to the work process and tools to human possibilities.
18. C.M What is occupational disease?
[*] Occupational disease is a chronic condition
[*] occurs as a result of exercising a job or a profession
[*] is caused by physical, chemical or biological factors characteristic of the workplace
[*] overloading of different organs or systems of the body in the work process.
[ ] not overloading different organs or systems of the body in the work process.
19. C.M Give the classification of occupational diseases?
[*] Intoxications, caused by inhalation, ingestion or skin contact with toxic substances
[*] Pneumoconioses, caused by inhalation of non-toxic powders
[*] Diseases due to exposure to radiant energy;
[*] Diseases from exposure to high or low temperatures
[ ] Gastrointestinal bleeding.
20. C.M Give the classification of occupational diseases?
[*] Diseases due to exposure to noise and vibrations
[*] Diseases due to exposure to high or low atmospheric pressure
[*] Occupational allergies
[ ] Acute pancreatitis
[*] Occupational cancer.
21. C.M Name the occupational diseases depending on the damage to the target system:
[*] Respiratory diseases (silicosis, anthraco-silicosis, asbestosis)
[*] Skin diseases (allergic dermatoses)
[*] Musculoskeletal disorders
[*] Mental and Behavioral Disorders (Post Traumatic Stress Disorder)

[ ] the reproductive system
22. C.M What are the mechanisms of participation in the pathology of occupational diseases?
[*] Irritating reactions
[*] Specific inflammatory mechanisms
[*] Immunological mechanisms
[*] Enzymatic mechanisms
[ ] Non-irritating reactions
23. C.M What are the diagnostic stages of an occupational disease?
[*] Professional route;
[*] History of the disease;
[*] The objective exam;
[*] Laboratory investigations;
[ ] Non-professional anamnesis.
24. C.M What are the stages of diagnosing an occupational disease?
[*] Professional route;
[*] Company history;
[*] The objective exam;
[*] Laboratory investigations;
[*] Positive and differential diagnosis
25. C.M What are the investigative methods in occupational medicine?
[ ] Hygienic sanitation method
[*] Clinical, epidemiological and health statistical methods
[*] Electrophysiological, biochemical, morphological, hematological, toxicological methods
[*] Ergonomic methods – can evaluate the position of the body in the work process.
[*] Electrophysiological, biochemical, morphological, hematological, toxicological methods - for the assessment of work capacity.
26. C.M What is the treatment of occupational diseases?
[*] Etiological
[*] Pathogenetic
27
[*] Symptomatic
[ ] Parasitic
[ ] Proton pump inhibitors
27. C.M Declaration and record of occupational diseases, what are the stages?
[*] Suspicion of cases of occupational diseases and occupational poisoning;
[*] Reporting suspected cases of occupational diseases and occupational poisoning;
[*] Researching cases of occupational diseases and drawing up the research minutes;
[ ] Confirmation of diagnosis of general illness
[*] Declaration of occupational diseases.
28. C.M. How do you suspect and report occupational diseases?
[*] The report sheet for the case of suspected occupational disease is completed by the president of the medical commission in the public/private medical institution
[*] The signaling sheet is sent, on paper and in electronic form
[ ] The signaling sheet is not sent on paper
[*] The report sheet for suspected disease (intoxication) can also be completed by the family doctor
[*] The notification sheet is sent to the responsible CSP of the ANSP and the employer.
29. C.M How long does the investigation of the occupational disease take place?
[*] in the case of an acute illness or intoxication, it is carried out for 24 hours from the moment of intoxication;
[*] in the case of a chronic occupational pathology for 15 days from the moment of suspicion

[*] in the case of the need for additional information from the former workplace, the research term can be extended up to 30 days.
[ ] in the case of a chronic occupational pathology for 21 days from the moment of suspicion
[ ] in the case of an acute illness or intoxication, it is carried out for 48 hours
30. C.M The results of the occupational disease research (recorded in the research report) to whom is this report provided?
[*] To the employer
[*] The medical institution
[ ] To the patient
[ ] Public Health Center
[ ] IMSP AMU
31. C.M. The president of the medical commission in the public/private medical institution, which has established the suspicion of occupational disease (intoxication), is obliged to send the affected person to the Republican Center for occupational diseases for establishing the diagnosis of occupational disease (intoxication) within:
[*] 14 calendar days in case of acute occupational diseases (poisoning).
[*] 45 calendar days in the case of chronic occupational diseases (poisoning).
[ ] 55 calendar days in case of acute occupational diseases (poisoning);
[ ] 18 calendar days in the case of acute occupational diseases (poisoning);
[ ] 42 calendar days in the case of chronic occupational diseases (intoxications).
32. C.M What documents are required to confirm occupational diseases:
[*] the medical record of the outpatient patient (f.025/e) or the medical record of the patient in the profile inpatient (f.003/e);
[*] the medical file;

[*] the minutes/informative note regarding the existence/absence of the link between the working conditions and the occupational disease (intoxication);
[ ] the document confirming the activity of the economic agent;
[*] submission - extract (f.027/e).
33. C.M Name the stages of declaring occupational diseases:
[*] After establishing the diagnosis of occupational disease (intoxication), the Republican Center for Occupational Diseases prepares the Occupational Disease (Intoxication) Case Declaration Form.
[*] The declaration form is sent within 3 calendar days
[*] The declaration form is sent to the Public Health Center and the employer.
[*] The diagnosis of occupational disease (intoxication) is established by the Republican Center for Occupational Diseases.
[ ] The diagnosis of occupational disease (intoxication) is established by the territorial Public Health Center.
34. C.M Select the examples of international legislation in occupational medicine?
[*] Declaration of human rights adopted by the UN on December 10, 1948 art.23 p.1,
[*] UN: Declaration on Fundamental Principles and Rights at Work.
[*] The European Convention for the Protection of Human Rights and Fundamental Freedoms, adopted in Rome in 1950.
[*] The European Social Charter - revised in 1996, art.3 The right to safety and occupational hygiene.
[ ] UN: Declaration on the Employer's Fundamental Principles.
35. C.M. The legislative framework for labor protection in the Republic of Moldova is represented by:
[ ] Health Protection Law, no. 111-XIII of 28.03.1998;
[*] Law on safety and health at work, no. 186-XVI of 10.07.2008;

[*] Law on Insurance for Work Accidents and Occupational Diseases, No. 756 of 24.12.1999
[*] GD no. 1025 of 07.09.2016 for the approval of the sanitary regulation regarding the health supervision of persons exposed to occupational risk factors;
[*] GD no. 1282 of 29.11.2016 for the approval of the Health Regulation on the method of research and establishing the diagnosis of occupational disease.
36. C.M What are the measures to prevent the negative impact of working conditions on the body?
[*] Legislative measures;
[*] Organizational and planning measures,
[*] Technological measures;
[*] Technical-sanitary measures;
[ ] Control measures.
37. C.M What are the measures to prevent the negative impact of working conditions on the body?
[*] Technological measures;
[*] Technical-sanitary measures;
[*] Administrative measures;
[*] Medical measures;
[ ] Control measures.
29
38. C.M What are the technical-organizational measures of occupational diseases?
[*] Eliminating the professional nox from the technological process by replacing harmful substances or harmful technologies with less harmful or harmless ones;
[*] Isolation of the equipment generating noxes (automation, special cabins, thermal insulation);
[*] Preventing the penetration of noxia into the workplace air (sealing, wet processes for powders, local ventilation);
[*] Reducing the concentrations of existing noxes at the workplace;
[ ] Increasing the concentrations of existing noxes at the workplace;
39. C.M What are the technical-organizational measures of occupational diseases?
[*] Preventing the action of damages on workers or reducing this action
[*] Provision of protective equipment
[*] The correct execution of training for safety and health at work.
[ ] These measures have no role.
[ ] They are not effective.
40. C.M What are the medical measures to prevent occupational diseases?
[*] Recognition of occupational risk at workplaces through careful study of the technological process and working conditions
[*] Carrying out noxiousness determinations, epidemiological studies;
[*] Appropriate performance of the medical examination upon employment and the periodic one
[*] Health education.
[ ] Medical manipulations.
41. C.M Improving individual protective equipment for the prevention of occupational diseases, what does it consist of?
[*] Standardization of respiratory protective equipment in production areas.
[*] Removal of respiratory protection equipment from areas where monitoring results show that the exposure is lower than the Occupational Exposure Limit
[*] For the selection process of suppliers of protective gloves, a new parameter was included, namely the permeability of the gloves to chemical substances
[*] Changing the model of work equipment to reduce the skin areas exposed to chemicals.
[ ] Not changing the model of work equipment to reduce the integumentary areas exposed to chemicals.
42. C.M What would the development of a coherent, effective prevention policy in occupational

diseases entail?
[*] Risk elimination
[*] Adapting the work of each individual
[*] Adaptation to technical progress
[*] Automating the work process and eliminating manual manipulations as much as possible.
[ ] All answers are wrong.
43. C.M What would the development of a coherent, effective prevention policy in occupational diseases entail?
[*] Training, Informing and Consulting employees regarding OSH (Occupational Safety and Security).
[*] Medical supervision.
[*] Risk monitoring.
[*] Education for health.
[ ] All answers are wrong.
44. CS. Occupational diseases are characterized by:
[ ] Acute conditions specific to workers in the chemical industry;
[ ] Diseases acquired only as a result of practicing physical work;
[*] Ailments acquired as a result of participating in a work process;
[ ] Conditions for which the specific etiology cannot be established;
[ ] Conditions established following the performance of medical adaptation examinations.
45. CS. At moderate concentrations and long-term exposure to an occupational risk factor, what occurs?
[ ] There are no changes in the employees' health status;
[ ] Specific changes occur, dose and duration do not play a determining role;
[*] Non-specific changes in the state of health of workers occur;
[ ] Long-term exposure to an occupational risk factor will mask the etiology diseases;
[ ] Occupational risk factors act only in the short term and at concentrations big.
46. CS. Name the harmful factors in the occupational environment:
[ ] Factors that negatively influence work capacity or cause occupational diseases and other unfavorable consequences;
[ ] The dangerous factors are established following periodic medical examinations;
[ ] Factors that, under certain conditions, can cause chronic disorders of workers' health; [*] Factors that under certain conditions can cause acute health disorders and the death of the organism;
[ ] Hazardous factors cannot be controlled and will necessarily affect the health of workers.
47. CS. Name the factors that have a negative influence on the ability to work or that cause occupational diseases and other unfavorable consequences:
[ ] The dangerous factors;
[*] Harmful factors;
[ ] Genetic factors;
[ ] Food factors;
[ ] Behavioral factors.
48. C.M. Name the classification of occupational harmful agents:
[*] physical factors
[*] chemical factors
[*] biological factors
[*] ergonomic factors
[ ] environmental factors
49. C.M. Determine the predominant storage of professional noxes in the body:

[*] adipose - skin system
[ ] the muscular system
[*] renal system
[*] the gastrointestinal system
[*] the liver
50. C.M. The physical factors in the occupational environment are:
[*] Noise, vibration, lighting;
[*] Electromagnetic radiation;
[*] Powders;
[ ] Gases, aerosols;
[ ] Organization of work.